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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,949	06/11/1999	JURGEN JASPERNEITE	(H)99PH1261U	1052

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EXAMINER

KWOH, JASPER C

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 03/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/330,949

Applicant(s)

JASPERNEITE ET AL.

Examiner

Jasper Kwoh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the combining data into a transmitted frame must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: fig. 2, 76. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because structural elements 10, 20, 40, 60-65, and 70-76 are merely labeled with an identifying number. Since these elements are illustrated as blank boxes which does not correspond to well known graphical representations, applicant is required to provide suitable labeled representation under 37 C.F.R. 1.83 (a). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: on page 7, line 1, "I claim" should be changed to – We claim – since there are two inventors.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant claims a layer for matching; however, the specification only state that it "matches the data frames prepared by the data link layer to the physical layer." The actions, equipments and techniques required to match frames in this situation is not disclosed. The specification does not show how to perform this task. The ordinary person will not be able to perform the task by reading the disclosure.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCool (100Base-T: An Overview) in view of Reyurek (US006370448B1).

Regarding claims 1 and 9, McCool discloses an apparatus comprising a data link layer (i.e. fig. 1, LLC and MAC makes up the data link), a physical layer for high speed transmission (i.e. fig. 1, PHY 100Mb/s); an interface (i.e. fig.1, MII); and a layer for matching the data link layer to the physical layer (i.e. fig. 1, reconciliation). McCool does not specifically disclose that the data link layer operates with a fieldbus protocol. However, Reyurek teaches that the fieldbus protocol can be matched with the internet communication circuitry (i.e. fig. 8, 12) to be transmitted over the physical layer (i.e. 40). Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention to include matching the fieldbus and the physical layer as taught by Reyurek with the apparatus of McCool in order to provide process control information over the enterprise wide network. The motivation is to allow fieldbus bus equipment communicate enterprise wide.

Regarding claims 2-5 and 10, McCool discloses a medium independent interface (i.e. fig. 1, MII); data link layer comprising MAC, basic connection layer, peripheral data connection layer and a network management layer (i.e. fig. 1, data link, MAC, LLC; LLC is equivalent because it serves the same functions as basic connection layer, peripheral data connection layer and a network management layer); and physical layer is 802.3u standard of fast Ethernet (i.e. fig. 1, PHY, Fast Ethernet architecture).

Regarding claims 6-8, 11-14, McCool does not specifically disclose a system comprises at least one field bus component is connected. However, Eryurek teaches that at least one fieldbus component is connected to the Ethernet (i.e. fig. 1, 32 is connected to 40). Therefore, it would have been obvious to an ordinary person skilled in the art at the time of the invention to include having at least one field bus as taught by Eryurek with the layers as disclosed by McCool in order for the transmission to be properly transmitted. The motivation is to allow fieldbus bus equipment communicate enterprise wide.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Swale et al. (US006233626B1) is cited for a modular terminal input/output interface for communicating messaging application layer over encoded Ethernet to transport layer;
- b. Azarya et al. (US005978578A) is cited for an openbus system for control automation networks;

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- c. Wood is cited to show an IEC 61158 : The fieldbus standard ; and
- d. Demartini et al. is cited to show a real-time communication in the factory automation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasper Kwoh whose telephone number is (703) 305-0101. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703)308-5340. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.



JK
March 11, 2003

Jasper Kwoh
Examiner
Art Unit 2663



MELVIN MARCELO
PRIMARY EXAMINER